

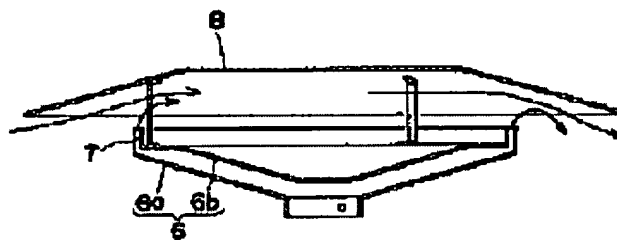
## OUTDOOR DISPOSING HEATER

Patent number: JP7286736  
Publication date: 1995-10-31  
Inventor: OKANO TERUO  
Applicant: KATSURA SEIKI SEISAKUSHO:KK  
Classification:  
- International: F24C15/24; F23L17/02  
- european:  
Application number: JP19940101593 19940415  
Priority number(s):

### Abstract of JP7286736

**PURPOSE:** To eliminate a flame failure without any influence to air supply and exhaust even if a wind blows.

**CONSTITUTION:** A stand type outdoor disposing heater has a combustion cylinder which is also used as a post on a housing containing a fuel cylinder, a burner disposed at a lower end of the combustion cylinder in such a manner that secondary air flows by natural air flow around the burner in the combustion cylinder, and comprises an exhaust cylinder 6 disposed at an upper end of the combustion cylinder to introduce combustion gas and to radiate radiant heat, and an exhaust cylinder top 8 provided to prevent invasion of rainy water above the cylinder 6. An exhaust port 7 disposed annularly at the cylinder 6 and having a narrow opening width provided radially is provided so that, even if a wind blows through between the top 8 and the cylinder 6, only blow-off effect occurs in the port 7 having the narrow opening width radially in a slit or a hole having a narrow gap thereby to prevent a reverse flow of combustion exhaust gas in the combustion cylinder and to eliminate a decrease in a lifting amount of the air into the combustion cylinder.



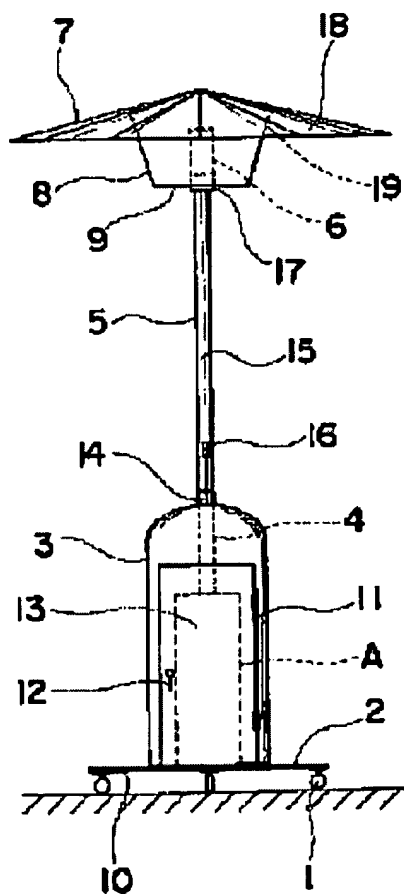
## PARASOL TYPE HEATER

**Patent number:** JP9196381  
**Publication date:** 1997-07-29  
**Inventor:** KANEDA KAORU  
**Applicant:** KANEDA KOSAKUSHO:KK  
**Classification:**  
 - International: F24C3/14  
 - european:  
**Application number:** JP19960025951 19960119  
**Priority number(s):**

### Abstract of JP9196381

**PROBLEM TO BE SOLVED:** To enable heating simply and effectively at the outside in a cold district.

**SOLUTION:** A heating body 9, that comprises a rechargeable fuel storage body 3, inside which an LP gas container A is mounted exchangeably is provided on the upper side of a pedestal 2 with casters 1, a pole 5, inside which is pierced with a gas pipe 4 is erected on the upper side of the fuel storage body 3 so that the lower edge of the inside gas pipe 4 is attached to the LP gas container A connectably and detachably, an infrared gas burner 6 that is connected to the upper edge of the gas pipe 4, a reflecting shade 7 that reflects the heat from the gas burner 6 downward and a supporting board 8 that supports the reflecting shade 7 at the end of the pole 5, is assembled detachably.



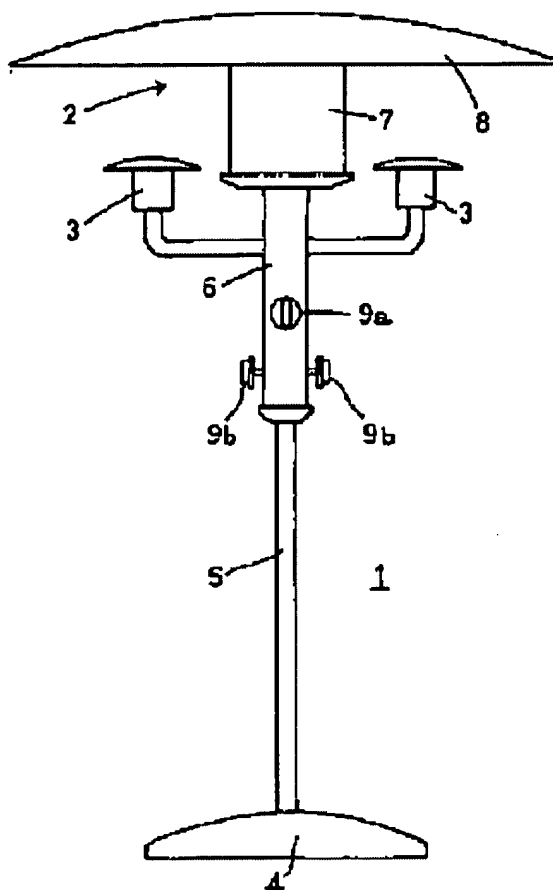
## OUTDOOR HEATING DEVICE

Patent number: JP9303784  
Publication date: 1997-11-28  
Inventor: MORITOKI YOSHIKI; ITOKAWA HIDEKI  
Applicant: TOKYO GAS CO LTD;; NISSEI OOBARU KK  
Classification:  
- international: F24C3/00  
- european:  
Application number: JP19960113968 19960508  
Priority number(s):

### Abstract of JP9303784

**PROBLEM TO BE SOLVED:** To provide an outdoor heating device which is suitable for a facility where people get together outdoors.

**SOLUTION:** This outdoor heating device has a disk-form base 4 which is installed on the ground, a post 5 which is erected on the base 4, a fuel feeding part 6, illuminators 3 which are projected to the sides of the fuel feeding part 6, and a heater 2 which is provided on the top of the fuel feeding part 6, and by controlling ignition cocks 9b, 9a, a main burner for illumination is ignited, and the illuminators 3 are lit up. In the meantime, a main burner for heating is ignited, and infrared rays are dispersed and radiated to the surroundings from a heating body 7 through an umbrella-form reflector 8, for the service of heating.







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# TERRACE HEATING DEVICE

**Patent number:** WO9858211  
**Publication date:** 1998-12-23  
**Inventor:** COLLET JEAN (FR)  
**Applicant:** COLLET JEAN (FR)  
**Classification:**  
 - international: F24C15/22; F24C1/12  
 - european: F24C1/12, F24C15/22  
**Application number:** WO1998FR01258 19980616  
**Priority number(s):** FR19970007675 19970616

## Also published as:

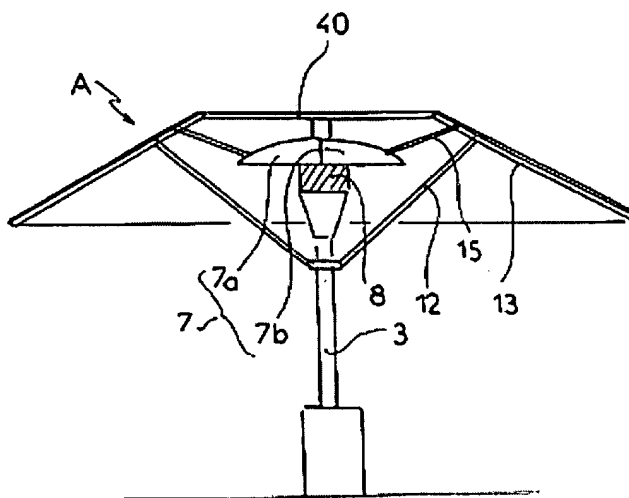
 EP0991900 (A1)  
 US6336450 (B1)  
 FR2764677 (A1)  
 EP0991900 (B1)

## Cited documents:

 US3739792  
 DE2023734

Abstract not available for WO9858211  
 Abstract of correspondent: **US6336450**

A terrace heating device includes a reflector (7) for reflecting rising heat from a heater (8) downward toward patrons on a terrace. An umbrella-like cover (10) is arranged on a support pole above the heater. The umbrella-like cover is articulable between an open position (FIG. 2b) and a closed position (FIG. 2a). The open position corresponds to a position of use in which the umbrella-like cover traps heat, holding the heat close to the patrons. In use, the umbrella-like cover is opened and the heater turned on to heat the space underneath the umbrella-like cover. The closed position corresponds to a storage position in which the umbrella-like cover folds about the support pole and a safety switch turns off the heater automatically. The umbrella-like cover is preferably defined by a detachable material for the cover which material is selected in accordance with the season, e.g., insulated for winter



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## A parasol space heater

**Patent number:** EP0976979  
**Publication date:** 2000-02-02  
**Inventor:** TIDEY ALISTAIR (IE); O'CONNELL JOSEPH (IE)  
**Applicant:** TIDEY ALISTAIR (IE); CONNELL JOSEPH O (IE)  
**Classification:**  
- International: F23D14/76; F23D14/70; F23D14/28; F24C1/12; F24C15/22  
- european: F23D14/76, F23D14/28, F23D14/70, F24C1/12, F24C15/22  
**Application number:** EP19990202172 19990703  
**Priority number(s):** IE19980000646 19980731

### Also published as:



IE980646 (A2)  
EP0976979 (B1)  
IE80826 (B2)

### Cited documents:



FR2764677  
FR2044254

### Abstract of EP0976979

A gas parasol space heating appliance is provided, comprising a base structure (51) for housing a bottle of gas, the base structure supporting a pole (52), the pole supporting a gas burner (53) arrangement with a dish deflector (54) supported thereon, in which the deflector dish (54) is collapsible and has a sufficient depth so as to extend substantially to or below the level of the base of the burner (53). The dish is preferably made in multiple sections (73, 82) which may be engaged together, or may be folded or fanned out to assemble the dish, or may be made of metal or metalized fabric in an umbrella structure. In another embodiment, the pole (2) is offset to one side of the base structure (1), and only the ground-engaging part (10) of the base structure is adapted to bear the load of the pole.

The base structure has a top surface (59,9) which may be used as a small table or tray surface, and a larger extended table (30) may be fitted on top of this. All of the components, with the exception of the bottled gas and ballast for the base, which are supplied by the user, may be broken down and fitted into a single box for ease of shipping, and handling by the retailer and purchaser.

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